

CHAPTER 48-04-04 SCRAPIE

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48-04-04-01. Definitions. The terms used throughout this chapter have the same meaning as in North Dakota Century Code chapter 36-01 except:

1. "Accredited veterinarian" means a veterinarian approved by the administrator to perform functions specified in title 9, Code of Federal Regulations, part 161, and to perform functions required by the cooperative state-federal disease control and eradication programs.
2. "Administrator" means the administrator, animal and plant health inspection service, United States department of agriculture, or any employee of the United States department of agriculture authorized to act for the administrator.
3. "Animal" means a sheep or goat.
4. "Animal and plant health inspection service" or "APHIS" means the animal and plant health inspection service of the United States department of agriculture.
5. "APHIS representative" means an individual employed by APHIS who is authorized to perform the function involved.
6. "Breed associations and registries" means organizations which maintain the permanent records of ancestry or pedigrees of animals (including the animals' sires and dams), individual identification of animals, and ownership of animals.
7. "Designated scrapie epidemiologist" (DSE) means a state or federal epidemiologist designated by APHIS and the state veterinarian to make decisions about the use and interpretation of diagnostic tests and field investigation data and the management of scrapie-affected flocks.
8. "Exposed animal" means any animal that has been in a flock or in an enclosure off the premises of the flock with a scrapie-positive

female animal or that has resided on the premises of a flock before or while it was designated an infected or source flock and before it had completed a flock plan unless the scrapie-positive animal was not born on the premises, the date on which it was first introduced to the premises is known, and the animal resided in the flock only before the scrapie-positive animal was introduced to the premises. Exposed animals will be designated as either genetically resistant exposed sheep, genetically less susceptible exposed sheep, genetically susceptible exposed animals, or low-risk exposed animals.

9. "Exposed flock" means any flock in which a scrapie-positive or suspect animal was born or lambed. Any flock containing a female high-risk or suspect animal or that once contained such an animal that lambed in the flock and from which obex and lymphoid tissues either were not submitted for official testing or were not found negative. A flock that has completed a postexposure management and monitoring plan (PEMMP) following the exposure will no longer be an exposed flock. A flock that has completed the required live-animal and genotype testing, that is in compliance with a PEMMP, and that has been determined to be low risk by the DSE based on the epidemiology of the flock and the test results will no longer be an exposed flock.
10. "Flock" means all animals maintained on any single premises, and all animals under common ownership or supervision on two or more premises with animal interchange between the premises. Changes in ownership of part or all of a flock do not change the identity of the flock or the regulatory requirements applicable to the flock. Animals maintained temporarily on a premises for activities such as shows and sales or while in marketing channels are not a flock. More than one flock may be maintained on a single premises if:
 - a. The flocks are enrolled as separate flocks in the scrapie flock certification program (SFCP); or
 - b. A state or APHIS representative determines, based on examination of flock records, that:
 - (1) No female animals have moved between the flocks;
 - (2) The flocks never commingle and are kept at least thirty feet [9.14 meters] apart at all times or are separated by a solid wall through, over, or under which fluids cannot pass and through which contact cannot occur;
 - (3) The flocks have separate flock records and identification;
 - (4) The flocks have separate lambing facilities, including buildings and pastures, and a pasture or building used for

lambing by one flock is not used by the other flock at any time; or

- (5) The flocks do not share equipment without cleaning and disinfection in accordance with the guidelines published in 9 CFR 54.7.

- 11. "Flock of origin" means, for male animals, the flock of birth. For female animals, the flock in which an animal most recently resided in which it either was born, gave birth, or resided during lambing. The determination that an animal originated in a flock must be based either on the physical presence of the animal in the flock, the presence of official identification on the animal traceable to the flock, the presence of other identification on the animal that is listed on the bill of sale, or other evidence, such as registry records, means the flock in which an animal most recently resided in which it either was born, gave birth, or was used for breeding purposes.
- 12. "Flock plan" means a written flock management agreement signed by the owner of a flock, the accredited veterinarian if one is employed by the owner, and a state or APHIS representative in which each participant agrees to undertake actions specified in the flock plan to control the spread of scrapie from, and eradicate scrapie in, an infected flock or source flock or to reduce the risk of the occurrence of scrapie in a flock that contains a high-risk or an exposed animal. As part of a flock plan, the flock owner must provide the facilities and personnel needed to carry out the requirements of the flock plan. The flock plan must include the requirements in 9 CFR 54.8.
- 13. "Genetically less susceptible exposed sheep" means:
 - a. Any exposed AA QU sheep that was not designated exposed because of exposure to, or the presence in a flock of, a scrapie-positive RR or AA QR sheep.
 - b. Any exposed AV QR sheep that was not designated exposed because of exposure to, or the presence in a flock of, a scrapie-positive RR or QR sheep.
- 14. "Genetically resistant exposed sheep" means any exposed RR sheep or embryo that was not designated exposed because of exposure to, or the presence in a flock of, a scrapie-positive RR sheep.
- 15. "Genetically susceptible animal" means:
 - a. A goat;
 - b. A QQ sheep;

- c. A sheep or embryo of undeterminable genotype; or
 - d. A genetically susceptible exposed animal.
16. "Genetically susceptible exposed animal" means any exposed animal or embryo other than a low-risk exposed animal that is one of the following:
- a. A goat;
 - b. A QQ sheep;
 - c. A sheep of undeterminable genotype;
 - d. An AV QR sheep that was designated exposed because of exposure to, or the presence in a flock of, a scrapie-positive RR or QR sheep;
 - e. An AA QR sheep that was designated exposed because of exposure to, or the presence in a flock of, a scrapie-positive RR or AA QR sheep; or
 - f. An RR sheep that was designated exposed because of exposure to, or the presence in a flock of, a scrapie-positive RR sheep.
17. Genotypes of sheep. Two locations on DNA that code for prion protein are particularly important for scrapie susceptibility: codons 136 and 171. Codon 136 may code for either of the amino acids alanine (A) or valine (V). Codon 171 may code for the amino acids arginine (R), glutamine (Q), histidine (H), or lysine (K). For the purposes of these UM&R, H, K, or any amino acid other than R at codon 171 will be treated as equivalent to Q at codon 171.
- a. "RR sheep" means any sheep that has tested RR at codon 171 on an official genotype test.
 - b. "QR sheep" means any sheep that has tested QR, KR, or HR at codon 171 on an official genotype test.
 - c. "QQ sheep" means any sheep that has tested QQ, QK, QH, HK, KK, or HH at codon 171 on an official genotype test.
 - d. "AV sheep" means any sheep that has tested AV at codon 136 on an official genotype test.
 - e. "VV sheep" means any sheep that has tested VV at codon 136 on an official genotype test.

- f. "AA sheep" means any sheep that has tested AA at codon 136 on an official genotype test.
 - g. "AA QR sheep" means any sheep that has tested QR, KR, or HR at codon 171 and AA at codon 136 on an official genotype test.
 - h. "AV QR sheep" means any sheep that has tested QR, KR, or HR at codon 171 and AV at codon 136 on an official genotype test.
 - i. "AA QQ sheep" means any sheep that has tested QQ, QK, QH, HK, KK, or HH at codon 171 and AA at codon 136 on an official genotype test.
 - j. "AV QQ sheep" means any sheep that has tested QQ, QK, QH, HK, KK, or HH at codon 171 and AV at codon 136 on an official genotype test.
 - k. "VV QQ sheep" means any sheep that has tested QQ, QK, QH, HK, KK, or HH at codon 171 and VV at codon 136 on an official genotype test.
- 18. "High-risk animal" means any female genetically susceptible exposed animal. The female offspring of a scrapie-positive female animal and any female genetically less susceptible animal that the DSE and state veterinarian determine to be a potential risk based on the epidemiology of the flock, including genetics of the positive sheep, the prevalence of scrapie in the flock, any history of recurrent infection, or other characteristics.
 - 19. "Infected flock" means any flock in which a state representative has determined an animal to be a scrapie-positive female animal has resided unless an epidemiologic investigation conducted by a state representative shows the animal did not lamb or abort in the flock. A flock will no longer be an infected flock after it has completed the requirements of a flock plan.
 - 20. "Male animal" means a sexually intact male sheep or goat.
 - 21. "Official eartag" means an identification eartag approved by APHIS as being sufficiently tamper-resistant for the intended use and providing unique identification for each animal. An official eartag may conform to the alphanumeric national uniform eartagging system or another system approved by APHIS, or it may bear an APHIS-approved premises identification number that either contains a unique identification number or is used in conjunction with the producer's livestock production numbering system to provide a unique identification number.
 - 22. "Official identification" means identification approved by the state veterinarian for use in the scrapie eradication program.

23. "Official test" means any test for the diagnosis of scrapie in a live or dead animal that is approved by the administrator for that use and is conducted either at an approved laboratory or at the national veterinary services laboratory.
24. "Owner" means a person, partnership, company, corporation, or any other legal entity that has legal or rightful title to animals, whether or not they are subject to a mortgage.
25. "Permit" means an official document issued in connection with the interstate movement of animals (VS form 1-27 or a state form that contains the same information) by an APHIS representative, state representative, or an accredited veterinarian authorized to sign such permits. A new permit is required for each change in destination for an animal. The permit lists:
- a. The owner's name and address;
 - b. Points of origin and destination;
 - c. Purpose of the movement;
 - d. Number and species of animals covered by the permit;
 - e. Official identification numbers of the animals on the shipment;
 - f. Whether the animals are from an exposed, noncompliant infected flock or a source flock;
 - g. Whether the animal is a high-risk, exposed, scrapie-positive, or scrapie-suspect animal;
 - h. Transportation vehicle license number or other identification numbers; and
 - i. Seal number.
26. "Scrapie-positive animal" means an animal for which an approved test for scrapie has been conducted with positive results by the national veterinary services laboratory or another laboratory authorized by the administrator to conduct scrapie tests in accordance with 9 CFR 54 through any of the following methods:
- a. Histopathological examination of central nervous system tissues from the animal for characteristic microscopic lesions of scrapie;
 - b. The use of proteinase-resistant protein analysis methods, including immunohistochemistry or western blotting, or both, on

central nervous system or peripheral tissue samples, or both, from a live or a dead animal for which a given method has been approved by the administrator for use on that tissue;

- c. Bioassay;
 - d. Scrapie-associated fibrils detected by electron microscopy; or
 - e. Any other test method approved by the administrator in accordance with 9 CFR 54.10.
27. "Source flock" means a flock in which a state or APHIS representative has determined that at least one animal was born that was diagnosed as a scrapie-positive animal at an age of seventy-two months or less or in which a scrapie-positive animal has resided throughout its life. The determination that an animal was born in a flock must be based either on the presence of official identification on the animal traceable to the flock, the presence of other identification on the animal that is listed on the bill of sale, or other evidence, such as registry records, to show that a scrapie-positive animal originated from the flock combined with the absence of records indicating that the animal was purchased and added to the flock. If DNA from the animal was collected when the animal resided in the flock of birth by an accredited veterinarian and stored at an approved genotyping laboratory, or if DNA collection and storage is required for breed registration and the breed registration has appropriate safeguards in place to ensure the integrity of the banking process, the owner may request verification of the animal's identity based on DNA comparison if adequate records and identification have been maintained by the owner and the repository to show that the archived DNA is that of the animal that has been traced to the flock. A flock will no longer be a source flock after it has completed the requirements of a flock plan.
28. "State" means each of the fifty states, the District of Columbia, the Northern Mariana Islands, Puerto Rico, and all territories or possessions of the United States.
29. "State representative" means the state veterinarian, deputy state veterinarian, or an agent of the state board of animal health.
30. "Suspect animal" means an animal will be designated a suspect animal if it is:
- a. A sheep or goat that exhibits any of the following clinical signs of scrapie and has been determined to be suspicious for scrapie by an accredited veterinarian or a state or APHIS representative: weight loss despite retention of appetite; behavioral abnormalities; pruritus (itching); wool pulling; biting at legs or side; lip smacking; motor abnormalities such as incoordination, high-stepping gait

of forelimbs, bunny hop movement of rear legs, or swaying of back end; increased sensitivity to noise and sudden movement; tremor, star gazing, head pressing, recumbency, or other signs of neurological disease; or chronic wasting illness;

- b. A sheep or goat that has tested positive for scrapie or for the protease-resistant protein associated with scrapie on an unofficial test or a screening test; or
- c. A sheep or goat whose official scrapie test yielded inconclusive or suggestive results, i.e., the national veterinary services laboratory report reads inconclusive or suggestive rather than not detected.

31. "Trace" means all actions required to identify the flock of origin or destination of an animal.

History: Effective October 1, 1999; amended effective February 14, 2005.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12; 9 CFR 79.1; 9 CFR 161

48-04-04-02. Disposition of infected flock. In the event a flock is determined to be a scrapie-infected flock, the flock must be quarantined. The owner has the option of depopulating the flock or signing an agreement with the state-federal scrapie program administrators agreeing to comply with requirements of title 9, Code of Federal Regulations, part 79.2, until the time the flock is no longer an infected flock.

History: Effective October 1, 1999.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12; 9 CFR 79.2

48-04-04-03. Disposition of source flock. In the event a flock is determined to be a scrapie source flock, the flock must be quarantined. The owner has the option of depopulating the flock, signing an agreement with the state-federal scrapie program administrators agreeing to comply with the requirements of title 9, Code of Federal Regulations, part 79.2, until the flock is no longer a source flock, or implementing a flock plan that meets board approval.

History: Effective October 1, 1999.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12; 9 CFR 79.2

48-04-04-04. Disposition of trace flock. Repealed effective February 14, 2005.

48-04-04-05. Disposition of exposed flock. In the event a flock is determined to be a scrapie exposed flock, the owner has the option of signing an agreement with the state-federal scrapie program administrators agreeing to comply with requirements of title 9, Code of Federal Regulations, part 79.2, until

the time the flock is no longer an exposed flock. Upon designation by a state representative as an exposed flock, the flock must be quarantined until the owner implements a flock plan that meets the state veterinarian's approval.

History: Effective October 1, 1999; amended effective February 14, 2005.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12; 9 CFR 79.2

48-04-04-06. Owner reporting requirements. The owner of a flock or the owner's agent shall immediately report to a state representative, APHIS representative, or an accredited veterinarian any animal in the flock exhibiting symptoms consistent with scrapie. Symptoms of scrapie include weight loss despite retention of appetite; behavioral abnormalities; pruritus (itching); wool pulling; biting at legs or side; lip smacking; motor abnormalities such as incoordination, high-stepping gate of forelimbs, bunny hop movement of rear legs, swaying of back end; increased sensitivity to noise and sudden movement; tremor, "star gazing", head pressing, recumbency, or other signs of neurological disease or chronic wasting illness. Such animals must not be removed from the flock without written permission of a state representative.

History: Effective October 1, 1999.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12

48-04-04-07. Official identification required.

1. The owner of a flock or the owner's agent shall officially identify all animals upon change of ownership to the flock of birth or the flock of origin if the flock of birth cannot be determined. Animals required to be officially identified include:
 - a. All breeding sheep;
 - b. All sexually intact animals for exhibition;
 - c. All sheep over eighteen months of age;
 - d. All exposed and high-risk animals, including all low-risk exposed animals, genetically susceptible exposed animals, genetically less susceptible exposed animals, and genetically resistant exposed sheep;
 - e. All suspect and test-positive animals;
 - f. Animals from noncompliant flocks; and
 - g. Breeding goats, except low-risk commercial goats.
2. Animals not required to be individually identified include:

- a. Slaughter sheep (sheep in slaughter channels) under eighteen months (Note: If a sexually intact sheep is sold at an unrestricted sale (any sale that is not a slaughter or feeding for slaughter sale), it must be identified.);
 - b. Wethers for exhibition;
 - c. Slaughter goats (goats in slaughter channels);
 - d. Low-risk commercial goats;
 - e. Animals shipped directly to an approved slaughter facility or an approved market when all the animals in a section of a truck are from the same premises of origin and are accompanied by an owner's statement; and
 - f. Animals moved for grazing or similar management reasons whenever the animals are moved from a premises owned or leased by the owner of the animals to another premises owned or leased by the owner of the animals.
3. No animal that is required to be individually identified or premises identified by this section may be sold, transported, received for transportation, or offered for sale or transportation in intrastate commerce unless each animal is identified in accordance with this section.
4. No person may remove or tamper with any means of identification required to be on animals pursuant to this section while the animals are in intrastate commerce, and, at the time of slaughter, animal identification must be maintained throughout post-mortem inspection.
5. Identification of scrapie-suspect, scrapie-positive, scrapie-exposed, and high-risk animals, including all low-risk exposed animals, genetically susceptible exposed animals, genetically less susceptible exposed animals, and genetically resistant exposed sheep.
- a. The identification device required is an official metal eartag, official tamper-resistant plastic eartag, or other official eartags approved for this use by APHIS. Other official identification may be used when eartags cannot be used due to the absence of ears or similar problems. Animals other than RR sheep that are not removed will also be identified with an electronic identification device (EID) and be recorded in the SNGD.
 - b. Animals that are positive on an official live animal test will be identified with a red metal tag. Only APHIS or state representatives may acquire official red metal tags.

- c. All other animals will be identified with either a white or blue eartag. Blue tags are for animals in slaughter channels only.
- d. Tag application shall be by, or under the supervision of, an APHIS or state representative or an accredited veterinarian.

All forms of identification on suspect, positive, exposed, and high-risk animals, including low-risk exposed animals, genetically susceptible exposed animals, genetically less susceptible exposed animals, and genetically resistant exposed sheep, shall be recorded on VS form 5-20 or equivalent and forwarded to the DSE, the state veterinarian, and APHIS.

History: Effective October 1, 1999; amended effective February 14, 2005.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12

48-04-04-08. Flock records disclosure. The owner of a flock or the owner's agent shall allow breed associations and registries, livestock markets, and packers to disclose records to state representatives, to be used in an epidemiological investigation of source flocks, infected flocks, and exposed animals.

History: Effective October 1, 1999; amended effective February 14, 2005.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12

48-04-04-09. Disclosure of records under federal scrapie program. The owner of a flock enrolled in the voluntary scrapie flock certification program described in title 9, Code of Federal Regulations, part 54, or the owner's agent, selling or otherwise disposing of breeding stock shall make animals in the flock and records required to be kept under paragraph (a)(2)(iv) of title 9, Code of Federal Regulations, part 79.2, available for inspection by APHIS representatives or state representatives, given reasonable prior notice.

History: Effective October 1, 1999.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12; 9 CFR 79.2

48-04-04-10. Scrapie testing. Upon request by a state representative, the owner of a flock or the owner's agent shall have an accredited veterinarian collect and submit tissues from animals reported in accordance with section 48-04-04-06 to a laboratory designated by an APHIS or state representative.

History: Effective October 1, 1999.

General Authority: NDCC 36-01-08

Law Implemented: NDCC 36-01-12; 9 CFR 79.2